Precision Land Forming

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 462 04/02

DEFINITION
Precision Land Forming is reshaping the surface of land to planned grades.

PRACTICE INFORMATION
The purpose of the practice is to improve surface drainage, provide more effective use of rainfall, facilitate installation of more workable drainage systems, reduce mosquito infestations, control erosion, improve water quality, and prevent damage to land from water logging.

Precision land forming is used on any land suitable for the planned use, and where the practice is feasible. Soils must be sufficiently deep and of suitable textures that an adequate root zone remains following construction activities.

Precision land forming should be planned as an integral part of a conservation plan that provides for the wise use of the natural resources.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

The following pages list the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, and soil. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

STATE		FIELD OFFICE		DATE	
PRACTICE: 462 Precision Land Forming			NOTES:		
RESOURCE: SOIL **RESOURCE CONCERN: EROSION**					
RESOURCE INDICATORS			**PHYSICAL EFFECTS**		
SHEET AND RILL			moderate reduction in sheet and rill erosion		
WIND			insignificant		
EPHEMERAL GULLY			insignificant		
CLASSIC GULLY			insignificant		
STREAMBANK			N/A		
IRRIGATION INDUCED			significant reduction in irrigation induced erosio		
SOIL MASS MOVEMENT			N/A		
ROADBANK/CONSTRUCTION			N/A		
OTHER					
RESOURCE CONCERN: **SOIL CONDITION**					
SOIL TILTH			insignificant		
SOIL COMPACTION			insignificant		
SOIL CONTAMINATION					
• SALTS			N/A		
• ORGANICS			N/A		
• FERTILIZERS			N/A		
• PESTICIDES			N/A		
• OTHER					
DEPOSITION/DAMAGE					
• ONSITE			N/A		
• OFFSITE			N/A		
DEPOSITION/SAFETY					
• ONSITE			N/A		
• OFFSITE			N/A		
OTHER					
RESOURCE: **WATER** RESOURCE CONCERN: **WATER QUANTITY**					
SEEPS			insignificant		
RUNOFF/FLOODING			insignificant		
EXCESS SUBSURFACE WATER			insignificant		
INADEQUATE OUTLETS			N/A		
WATER MGT. IRRIGATION					
• SURFACE			N/A		
• SPRINKLER			N/A		
WATER MGT. NON-IRRIGATED			moderate improvement in moisture use		
RESTRICTED FLOW CAPACITY (H20 convey.)					
• ONSITE			insignificant		
• OFFSITE			insignificant		
RESTRICTED STORAGE			insignificant		

RESOURCE: **WATER** RESOURCE CONCERN**: WATER QUALITY**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
GROUNDWATER CONTAMINANTS	
• PESTICIDES	N/A
• NUTRIENTS AND ORGANICS	N/A
• SALINITY	N/A
• HEAVY METALS	N/A
• PATHOGENS	N/A
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	N/A
• NUTRIENTS AND ORGANICS	N/A
• SUSPENDED SEDIMENTS	N/A
• LOW DISSOLVED OXYGEN	N/A
• SALINITY	N/A
• HEAVY METALS	N/A
• WATER TEMPERATURE	N/A
• PATHOGENS	N/A
AQUATIC HABITAT SUITABILITY	N/A
OTHER	
RESOURCE: **AIR** RESOURCE CONCERN: **AIR QUALITY**	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	N/A
• OFFSITE SAFETY	N/A
• ONSITE STRUCT. PROBLEMS	N/A
• OFFSITE STRUCT. PROBLEMS	N/A
• ONSITE HEALTH	N/A
• OFFSITE HEALTH	N/A
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	N/A
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	N/A
OTHER	
RESOURCE CONCERN: **AIR CONDITION**	
AIR TEMPERATURE	N/A
AIR MOVEMENT (windbreak effect)	N/A
HUMIDITY	N/A
OTHER	

RESOURCE: **PLANT** RESOURCE CONCERN: **SUITABILITY**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
SITE ADAPTATION	insignificant
PLANT USE	insignificant
OTHER	
RESOURCE CONCERN: **CONDITION**	
PRODUCTIVITY	moder. improvement in plant cond./ productivity
HEALTH, VIGOR, SURVIVAL	moder. improvement in plant health,vigor,survival
OTHER	
RESOURCE CONCERN: **MANAGEMENT**	
ESTAB., GROWTH, HARVEST	moder. improvement in plant estab.,growth,harvest
NUTRIENT MANAGEMENT	N/A
PESTS	N/A
THREAT/ENDANGERED PLANTS	N/A
OTHER	
RESOURCE: **ANIMAL** RESOURCE CONCERN: **HABITAT**	
FOOD	N/A
COVER/SHELTER	N/A
WATER (QUANTITY & QUALITY)	N/A
OTHER	
RESOURCE CONCERN: **MANAGEMENT**	
POPULATION BALANCE	N/A
THREAT/ENDANGERED ANIMALS	N/A
HEALTH	N/A
OTHER	
RESOURCE: **HUMAN** RESOURCE CONCERNS**: ECONOMIC CONSIDERATIONS**	
PLAN / COST EFFECTIVENESS	moderately cost effective
CLIENT FINANCIAL CONDITION	moderately cost effective
MARKETS FOR PRODUCTS	N/A
AVAILABLE LABOR	N/A
AVAILABLE EQUIPMENT	N/A

RESOURCE: **HUMAN** RESOURCE CONCERN: **SOCIAL CONSIDERATIONS**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
PUBLIC HEALTH AND SAFETY	insignificant
PRIVATE/PUBLIC VALUES	insignificant
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	insignificant risk involved
TENURE	N/A
OTHER	
RESOURCE CONCERN: **CULTURAL CONSIDERATIONS**	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources
OTHER	